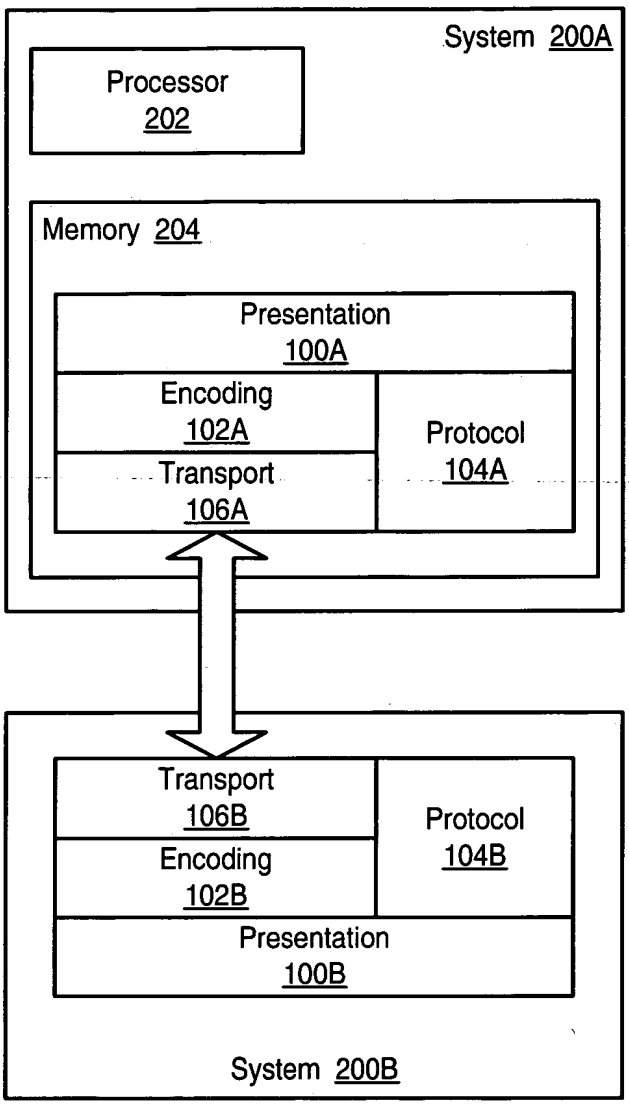
System 200A
Processor
202
Memory 204
Presentation
100A
Encoding
102A
Transport
106A
Protocol
104A
Transport
106B
Encoding
102B
Protocol
104B
Presentation
100B
System 200B

FIG. 1

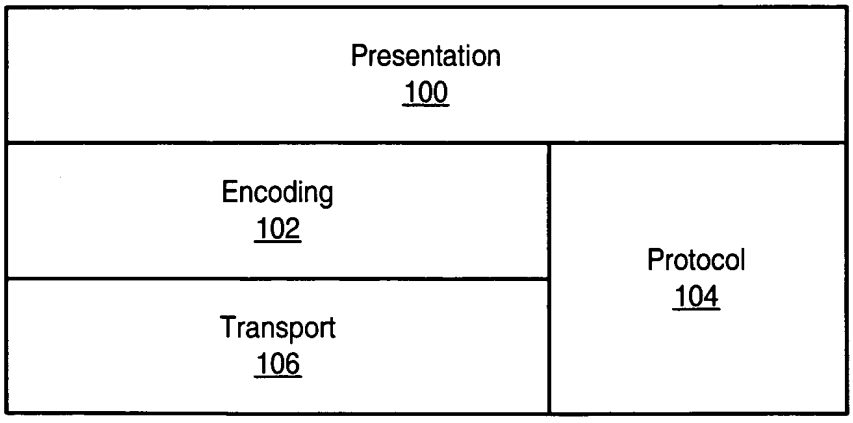
Presentation
100
Encoding
102
Transport
106
Protocol
104

FIG. 2

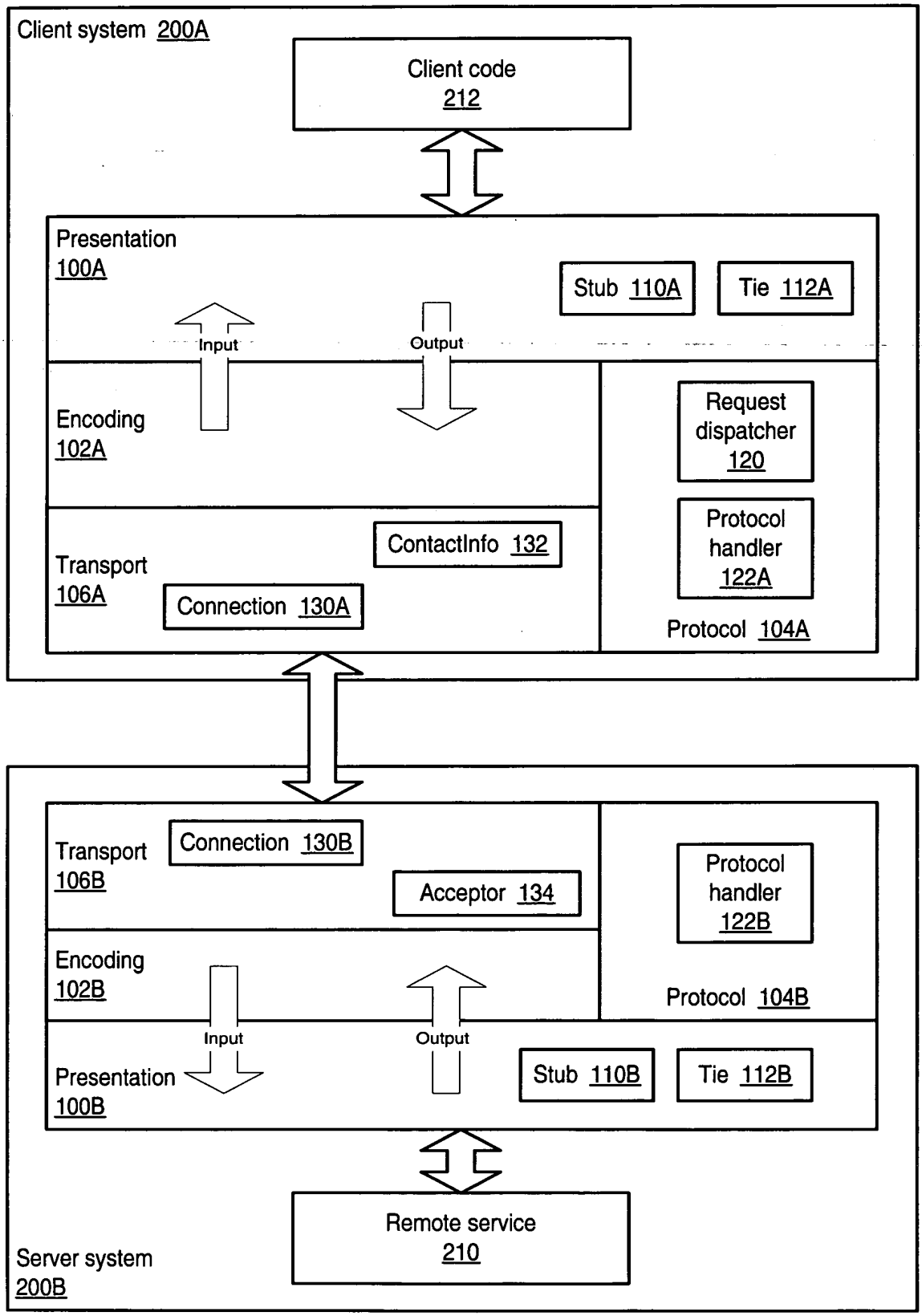
Client system 200A
Client code
212
Presentation
100A
Stub 110A
Tie 112A
Input
Output
Encoding
102A
Request
dispatcher
120
Protocol
handler
122A
Transport
106A
ContactInfo 132
Connection 130A
Protocol 104A
Transport
106B
Connection 130B
Acceptor 134
Protocol
handler
122B
Encoding
102B
Protocol 104B
Input
Output
Presentation
100B
Stub 110B
Tie 112B
Remote service
210
Server system
200B

FIG. 3

Operation	*Presentation*	*Encoding*	*Protocol*	*Transport*
get connection			Request Dispatcher	ContactInfo
get output object	stub [CS1]		Request Dispatcher	ContactInfo
marshal request header		OutputObject	Request Dispatcher	
(fragmentation)		OutputObject	Request Dispatcher	Connection
marshal request args	stub [CS2]	OutputObject		
marshal request complete	stub [CS3]		Request Dispatcher	
send request		OutputObject	Request Dispatcher	Connection
wait for reply			Protocol Handler	Connection
get input object			Protocol Handler	ContactInfo
unmarshal reply header		InputObject	Request Dispatcher	
(fragmentation)		InputObject	Protocol Handler	Connection
stub obtain input object	stub [CS4]		Request Dispatcher	
unmarshal reply (normal or error)	stub [CS5]	InputObject		
return or throw result	stub [CS6] [CS7]			
cleanup	stub [CS8]		Request Dispatcher	

FIG. 4

Operation	*Presentation*	*Encoding*	*Protocol*	*Transport*
get connection				Acceptor
receive request bits			Protocol Handler	Connection
get input object			Protocol Handler	Acceptor
find request dispatcher			Protocol Handler	
unmarshal request header		InputObject	Request Dispatcher	
(fragmentation)		InputObject	Protocol Handler	Connection
find tie / servant			Request Dispatcher	
invoke tie with input object	Tie [SS1]		Request Dispatcher	
unmarshal request args	Tie [SS2]	InputObject		
call servant	Tie [SS3]			
get output object	Tie [SS4]		Request Dispatcher	Acceptor
marshal reply header		OutputObject	Request Dispatcher	
marshal reply	Tie [SS5]	OutputObject		
marshal reply complete	Tie [SS6]		Request Dispatcher	
send reply on connection		OutputObject	Request Dispatcher	Connection
cleanup			Request Dispatcher	

FIG. 5

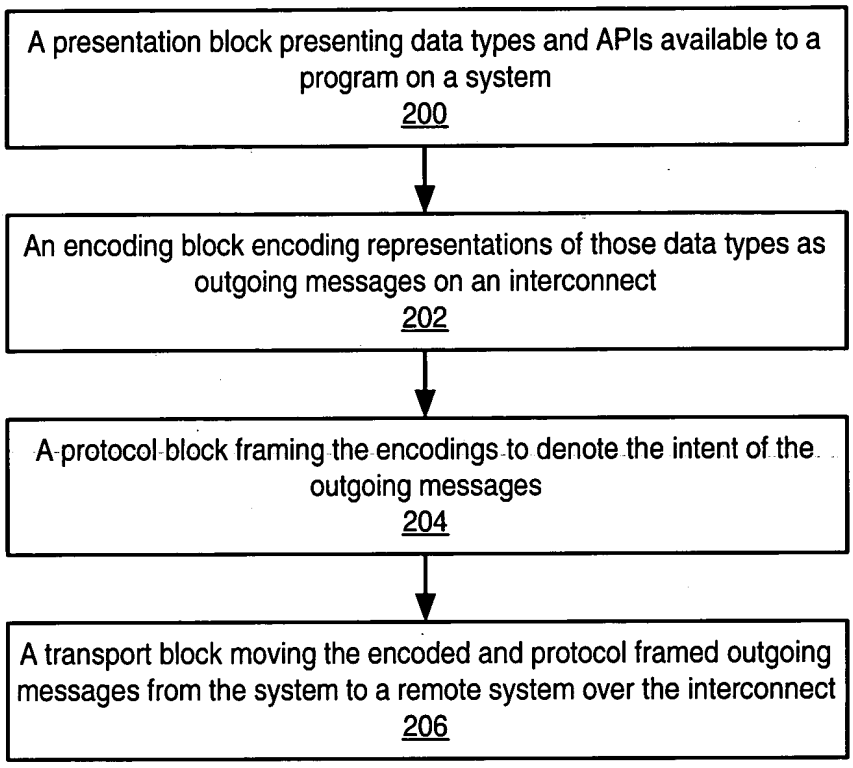
A presentation block presenting data types and APIs available to a program on a system
200
An encoding block encoding representations of those data types as outgoing messages on an interconnect
202
A protocol block framing the encodings to denote the intent of the outgoing messages
204
A transport block moving the encoded and protocol framed outgoing messages from the system to a remote system over the interconnect
206

FIG. 6

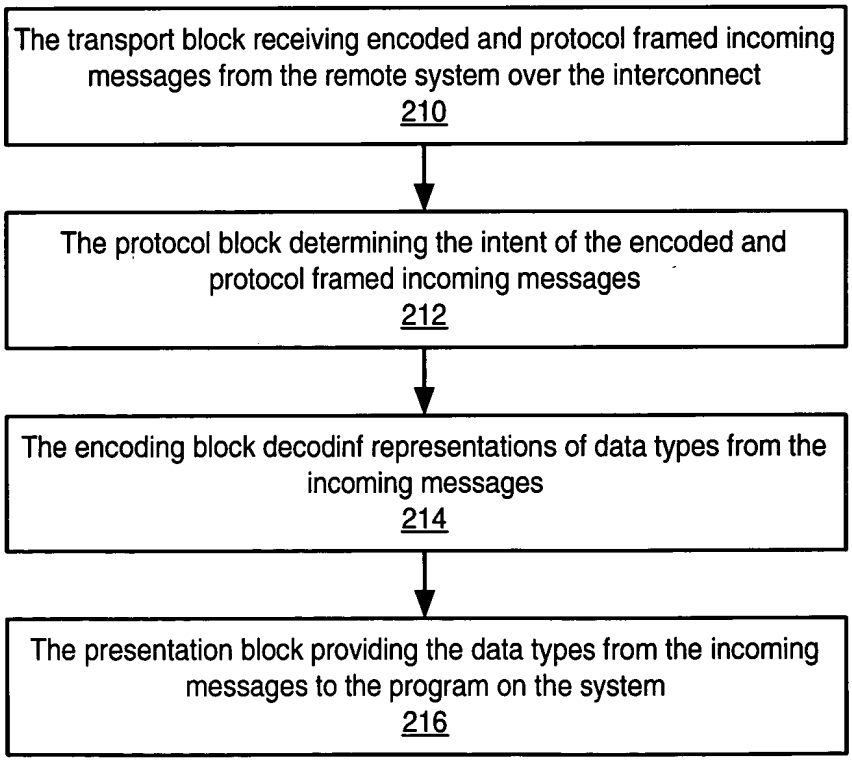
The transport block receiving encoded and protocol framed incoming messages from the remote system over the interconnect
210
The protocol block determining the intent of the encoded and protocol framed incoming messages
212
The encoding block decodinf representations of data types from the incoming messages
214
The presentation block providing the data types from the incoming messages to the program on the system
216

FIG. 7